WHAT IS CLAIMED IS:

1. A method for producing Permian super fuel comprising:

(a) introducing a hydrocarbon into a reactor vessel;

(b) introducing an acid into the reactor vessel;

(c) introducing an oxide into the reactor vessel;

(d) introducing a metal hydride compound into the reactor vessel; said metal hydride compound prepared by mixing together from about 1 to about 10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride

(e) circulating the mixture in the reactor vessel;

(f) recovering Permian super fuel.

2. The method according to claim 1 wherein the hydrocarbon is selected from the group consisting of gasoline, diesel fuel, fuel oil, kerosene, and jet fuel.

3. The method according to claim 1 wherein the metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.

4. The method according to claim 1 wherein the acid is selected from the group consisting of hydrochloric acid, hydrobromic acid, and mixtures thereof.

5. The method according to claim 1 wherein the

metal oxide is selected from the group consisting of chromic oxide, nickel oxide, aluminum oxide, magnesium oxide, manganese oxide, and mixtures thereof.

6. The method according to claim 1 wherein the reaction is conducted at temperatures ranging from about 0 to about 200°F.

7. The method according to claim 1 wherein the reaction is conducted at pressures ranging from about ambient to about 100 psi.

8. The method according to claim 1 wherein the hydrocarbon is present in amounts ranging from about 85 to about 96% by weight, the acid is present in amounts ranging from about 1 to about 5% by weight, the metal oxide is present in amounts ranging from about 0.1 to about 1% by weight, and the metal hydride compound is present in amounts ranging from about 1 to about 5% by weight.

9. A method for refining hydrocarbons comprising contacting hydrocarbons with a mixture of an acid, a metal oxide, and a metal hydride compound at pressures ranging from about ambient to about 25 psi and recovering refined hydrocarbons, wherein said metal hydride compound is prepared by mixing together from about 1 to about 10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular

weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride

10. The method according to claim 9 wherein said metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.

11. A method for polymerizing hydrocarbons comparing contacting hydrocarbons with a mixture of an acid, a metal oxide, and a metal hydride compound at pressures ranging from about ambient to about 25 psi and a temperature ranging from about 80 to about 150°F, and recovering a polymerized hydrocarbon, wherein said metal hydride compound is prepared by mixing together from about 1 to about 10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride

12. The method according to claim 11 wherein said metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.

13. A method for hydrogenating hydrocarbons comparing contacting hydrocarbons with a mixture of an acid, a metal oxide, and a metal hydride compound at pressures ranging from about ambient to about 25 psi and a temperature ranging from about 80 to about 150°F, and recovering a hydrogenated hydrocarbon, wherein said metal hydride compound is prepared by mixing together from about 1 to about 10 parts

by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride

14. A method for cleaning contaminated soils comprising contacting contaminated soil with an aqueous solution of a metal hydride compound to release petroleum products from the contaminated soil and removing the mixture of petroleum products and aqueous solution of a metal hydride compound from the soil, wherein the metal hydride compound is prepared by mixing together from about 1 to about 10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride.

15. The method according to claim 14 wherein the metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.

16. A method for enhancing recovery of oil from oil wells comprising accelerating an aqueous solution of a metal hydride compound through a restricted area in an oil well to create a cavitation effect, wherein said metal hydride compound is prepared by mixing together from about 1 to about

10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride.

17. The method according to claim 16 wherein the metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.

18. A method for cleaning surfaces comprising contacting said surface with an aqueous solution of a metal hydride compound, wherein said metal hydride compound is prepared by mixing together from about 1 to about 10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride.

19. The method according to claim 18 wherein the metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.

20. The method according to claim 18 wherein the surface is a tank bottom.

21. A method for treating sour gas comprising treating sour gas with an aqueous solution of a metal hydride compound, wherein said metal hydride compound is prepared by mixing together from about 1 to about 10 parts by molecular

weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride.

22. The method according to claim 21 wherein the metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.

23. A method for extracting edible or essential oils from plant materials comprising mixing a plant material containing edible or essential oil with an aqueous solution of a metal hydride compound and pressing the plant material to extract the edible or essential oils therefrom, wherein the metal hydride compound is prepared by mixing together from about 1 to about 10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride.

24. The method according to claim 23 wherein the metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.

25. A method for neutralizing odors comprising contacting the source of said odor with an aqueous solution of of a metal hydride compound, wherein the metal hydride

compound is prepared by mixing together from about 1 to about 10 parts by molecular weight of at least one metal selected from the group consisting of silicon, aluminum, tin, and zinc; from about 1 to about 3 parts by molecular weight of an alkali metal hydroxide; and from about 5 to about 10 parts by molecular weight of water and allowing this mixture to stand for a time sufficient to form a metal hydride.

26. The method according to claim 25 wherein the metal hydride compound is $Na_{8.2}Si_{4.4}H_{9.7}O_{17.6}$.